curse. This is a combination which leads to discontent and even to despair. Taxes raised to prosecute studies with reference to the causation of disease is a legitimate and an effectual way in which the sick man may aid the poor. It is a proper method by which the State may take from the one and give to the other. The same is true of taxation for the support of the public schools. Liberated from the bondage of disease and with the highest education free to him, the son of the poorest man among us need no longer suffer for the necessities of life, he need no longer be poor. An anti-poverty society which demands taxation for public health and public education would be one to which all of us should give our warmest support. This would be a kind of communism which statesmen should encourage and Governments foster. People of Ontario, there should be no education among you too costly for the son of the poor man to acquire! There should be among your laboring classes no disease which human skill, liberally aided by the Government, cannot eradicate. Is there a laboring man among your lawgivers? if so, I would say to him, never cease from your efforts until your Government has done all that it can to remove the shackles of ignorance and disease from those for whom you labor. Education and health for all. Ministers of every creed should plead for this. Physicians and scientists should labor for it. Journalists should use their mighty power, the press, in its behalf. Statesmen should, for a while, forget parties and strive to do all in their power for public education and public health. Governments should see to it that these are secured, as far as is possible, to all.

METHODS OF BIOLOGICAL ANALYSIS OF DRINKING WATER.

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PROF. RAMSAY WRIGHT, of University College, Toronto, delivered an address on this subject, before the Association of Executive Health Officers, illustrating his remarks by displaying several specimens of bacteria of different kinds in process of culture. He said:—

Mr. President and Gentlemen.—When your secretary asked me to address you on some subject in harmony with the general objects of your meeting, it occurred to me that I might interest you for a few minutes by speaking of the methods of biological analysis of drinking water. Disease germs or microbes are things we often hear of, but seldom see; so I have brought with me this evening some specimens of the growths found in drinking water. Some of the water I obtained from the lake and some from the bay opposite the city of Toronto, for the examination of the bacteria present therein, and in doing so I have employed the little machine which I have brought with me, the invention of an Edinburgh chemist, and which fits a four-ounce bottle and enables me to obtain several specimens of that quantity and at whatever depth desired. In that way I can sterilize a dozen different bottles of water. This little machine is a very convenient contrivance, being provided with two strings arranged in such a way that by means of one you can let down the bottle, and by means of the other you can remove the stopper, so as to fill the bottle at any depth you choose. By this means you are sure of obtaining an accurate sample of water.

After the water has been secured in a bottle in this way, it is necessary to proceed to examine it at once, because we know that bacteria will increase very rapidly in water which is above its natural temperature. The quantity taken is about one cubic centimetre, equal to something less than a half spoonful. That is placed in a small quantity of nutrient jelly, something like calf's foot jelly, which you see is so clear that the housewife might never suspect it. It is provided with *peptones* and *bouillon*; water is added to that, and the substance is poured out on a plate, on which it can be sterilized in an oven. I have a sample of tap water which I took on Saturday, and you will see that it is not in very good condition. It contains more points in development than it did in summer. All of the points comprise colonies of bacteria, by far the most of them I think perfectly harmless forms. You can see the separate points in the jelly, and it is a very simple matter to estimate the number of bacteria present in such a small quantity of water. One simply counts the number of colonies formed on the plate, which has been marked into squares, and estimates the number of germs in the vessel. Each of these has been provided with food, and the jelly has restrained the development of the bacteria, so as to form the separate little points shown in the preparation.